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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,558	03/08/2002	Olof Arvidsson	0104-0386P	7898
2292	7590	11/14/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2615	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,558

Applicant(s)

ARVIDSSON, OLOF

Examiner

Brian T. Pendleton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-22 is/are allowed.
- 6) ☒ Claim(s) 1,2,5-16,18,19,23-25 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 3,4,17 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-2, 5-19, 23-25, and 27-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 11-16, 18, 23, 24, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg, US Patent 5,966,639 in view of McKinley, Jr. In figure 1, Goldberg discloses a system for receiving audio signals from a plurality of microphones 120 comprising satellite units 105 and 107, each having a separate housing, wherein satellite units 107 have a composite signal channel input 115 and summing means 135. The satellite units are positioned away from receiving units 170. Goldberg does not disclose a master unit having a composite signal channel input and signal converting means for converting the composite signal into a master signal output. McKinley discloses a audio mixing console comprising a master unit 18 used for adding special effects to a composite site (converting a composite signal into a master signal output) for the receiving unit 20. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Goldberg to include the master unit of McKinley for the purpose of adding special effects to the mixed signal, thereby increasing the enjoyment of the sound mixing listening environment. Claims 1, 24, 27, 29, and 30 are met. As to claim 2, it would have been obvious that the combination requires that the master unit of McKinley be connected to the final mixed output since McKinley discloses that the external

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processing equipment 18 modifies the final mixed output. As a result, the combination provides that satellite unit 107 of Goldberg et al is coupled to a master unit, satisfying the claim limitations. As to claim 11, adders 135 add two signals, therefore inherently superimposing one signal onto another. Regarding claims 12 and 13, the adder is an analog summing circuit. As to claim 14, Examiner takes Official Notice that it was obvious at the time of invention to utilize digital or analog signal processing techniques. Per claim 15, there is obviously an amplifier circuit in the master unit 18 of McKinley. Regarding claim 16, there was an obvious need for power in the master unit, therefore one of ordinary skill in the art would have been motivated to provide a transformer or its equivalent in order to provide power. As claim 18, all audio signals are able to be reproduced by standard mixing consoles. Per claim 23, the combination of Goldberg and McKinley, Jr. discloses a wireless implementation, however it was well known to use cabling or wireless transmission for the purpose of sending audio signals to a separate receiver.

Claims 8-10 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg et al in view of McKinley, Jr. as applied to claims 1 and 27 above, and further in view of Sparkes. The combination of Goldberg and McKinley, Jr. does not disclose that the satellite units comprise level control means for controlling the level of the signal from the microphone input. Sparkes discloses a digital signal mixing apparatus comprising satellite units 29-33 having microphone inputs 34-38 and composite signal channel inputs 39-43. There is disclosed in column 7 lines 58-60 that the digital signal processor in the satellite unit accomplishes volume control. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combination of Goldberg and McKinley, Jr. to include volume control in the satellite

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unit, as taught by Sparkes, for the purpose of controlling the microphone signal levels and adding flexibility to the mixing system. Per claims 9 and 10, volume control inherently involves attenuation and gain control. Regarding claim 28, column 8 lines 48-50 disclose that the satellite units supply power to each other.

Claims 5, 6, 19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg in view of McKinley, Jr. as applied to claims 1 and 24 above, and further in view of Eastty. The combination of Goldberg and McKinley, Jr. does not disclose at least two common composite signal channels. Nevertheless, stereo mixing was well known at the time of invention. Eastty discloses a mixing apparatus comprising a stereo pair of microphones 1 for receiving an instrument acoustic signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use a stereo pair of microphones in the combination of Goldberg and McKinley, Jr. to enhance the listening experience. A stereo pair of microphones would naturally entail two composite signal channels and two microphone inputs. As to claims 19 and 25, one of ordinary skill in the art would have been motivated to provide the summed signals of Goldberg to a mixing console, as taught in Eastty, for the purpose of further manipulation of instrument sounds.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg in view of McKinley, Jr. and further in view of Eastty as applied to claim 6 above, and further in view of Sparkes. The combination of Goldberg, McKinley, Jr. and Eastty does not disclose a panning control means for panning of the microphone signals. Sparkes discloses a panning means in satellite units 29-33 (column 7 lines 58-60). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combination of Goldberg, McKinley, Jr. and

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Eastty to have the panning control, as taught by Sparkes, for the purpose of controlling the balance of the microphone signals.

Allowable Subject Matter

Claims 20-22 are allowed.

Claims 3, 4, 17, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (571) 272-7527. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian T. Pendleton
Primary Examiner
Art Unit 2615



btp